N5548A accident description

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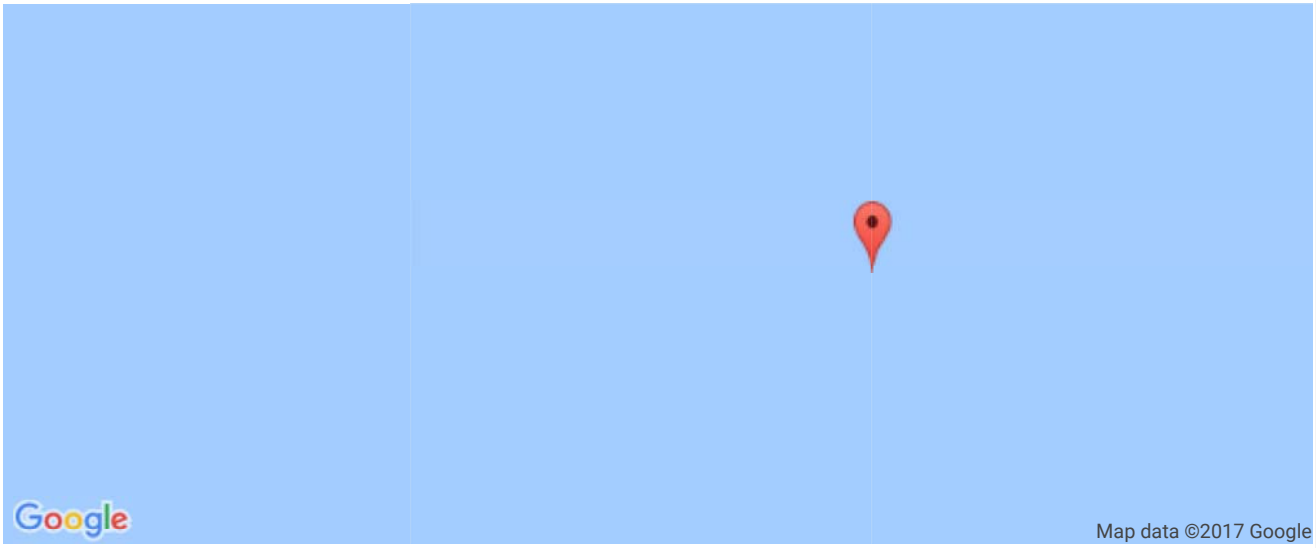

Tail number	**N5548A**
Accident date	March 25, 1999
Aircraft type	Grumman G-21A
Location	Lauderdale Lake, FL
Additional details:	None

NTSB description

HISTORY OF FLIGHT

On March 25, 1999, about 1139 eastern daylight time, a Grumman G-21A, N5548A, registered to Tropic Bird Holdings Inc., operating as a 14 CFR Part 135 competency flight, experienced a reported loss of left engine power, and crashed into a canal about 2 miles south of Fort Lauderdale Executive Airport (FXE), Fort Lauderdale, Florida. Visual meteorological conditions prevailed and no flight plan was filed. The airplane was destroyed. The airline transport pilot was fatally injured. The airline transport pilot FAA inspector sustained serious injuries. The flight originated from Watson Island International, Miami, Florida, about 10 minutes before the accident. The competency flight initially originated originated from FXE, at 0949.

Review of radio transcriptions between Fort Lauderdale Executive Air Traffic Control Tower (FXE) and N5548A, revealed that N5548A initially contacted the tower at 1136:33, with the ATIS information. At 1138:06,

N5548A informed the tower that he was 3 miles south for landing. The controller asked N5548A to state type of airplane. N5548A replied, "standby sir standby." At 1138:36, N5548A replied, "five five four eight alpha we'd like to declare an emergency sir ah we're two miles south." The controller informed N5548A to enter right base runway eight, cleared him to land and asked the nature of the emergency at 1138:44. N5548A replied, "ok we have a bad engine on the left side sir." The controller cleared N5548A to land again and provided the winds. There was no other recorded communication with N5548A.

The FAA inspector stated in an initial interview with another FAA employee present, that shortly before the accident she heard a bad engine sound, and looked at the manifold pressure and rpm, which was fluctuating. She informed the pilot that there was a pasture. He stated he was going for the water. They went down like a rock turning towards the canal and crashed. When asked if she heard the pilot declare an emergency or shut down an engine she said no.

The FAA inspector stated in a subsequent written statement to the NTSB that the load manifest showed the ballast and fuel, and that they had about 4.5 hours of fuel at cruise flight, which meant they could stay airborne just under 4 hours, because they would be using full power frequently. The pilot showed her the fuel system. She stated, "I do not recall the setting or that he ever mentioned his intentions for handling fuel or if and when he changed the fuel selector." The pilot had a paper copy of the checklist. It was their intentions to record any required changes that may be required. A certified letter was sent to the FAA inspector on June 3, 1999, requesting clarification of her statement. She was asked in the letter if she reviewed the Pilot Operating Handbook (POH), (Model JRF-5 airplane) before conducting the competency flight , and were there any deficiencies noted with the POH? She was asked if the airplane was equipped with dual controls, and were all of the flight controls available to her during the flight? In addition, she was asked if there were any deficiencies noted during the preflight inspection, during propeller governor and magneto check?

In her response dated July 14, 1999, she stated, "Mr. O'Leary presented me with a copy of a manual, not a POH, which had been described by Mr. Santiago, when we met on March 24, 1999, to use for the oral. I used it that evening to additionally familiarize myself with the aircraft. I had four questions for him when I met him the next day, and he answered all of them." She further stated, "The airplane was equipped with dual controls. It is rated for one pilot. The rudder pedals on the right side can be stowed. After the runup and check of the controls, I stowed them in the aft position. The pilot was aware of this because we had had a satisfactory discussion of what I would need to do should he become incapacitated or for any other reason I would need to take control of the aircraft. They were within reach to pull up into position for use." She also stated she did not recall any deficiencies during the preflight except for a minor correction to the load manifest, which was made, and there were no deficiencies with the propeller governor or magneto check.

They departed FXE, flew southbound, north of Turkey Point and set up for maneuvers conducting steep turns, stalls, and compass turns with the directional gyro and gyro horizon covered. They proceeded to Dolphin VOR and tracked inbound. Once established, they terminated the high work and positioned themselves for Government Cut, circling to wait access to the water. They landed and ramped the airplane at Chalk's seaplane base. They departed again, returned for a normal landing, steptaxied with turns, took off again, and power was reduced on one engine just past 500 feet. The pilot reacted quickly and power was restored. Abeam the probable touchdown point, power was reduced again on one engine. The pilot's procedures were good; however, the airplane was descending too fast and a go-around was commanded. The pilot returned for another landing without flaps, which resulted in another go-around. The appropriate checklist was completed and they headed to the Fort Lauderdale VOR.

They contacted Fort Lauderdale tower and were instructed to climb to 1,500 feet. They over flew the Fort Lauderdale-Hollywood International Airport. Once clear of their airspace, they descended to 1,000 feet, and called Fort Lauderdale Executive tower. The controller asked all aircraft to be silent and to listen to him for clearance. They made two shallow 360-degree turns while waiting for the controller to get back with them. The controller came back and stated that they were to make a right base to runway 08. Before the pilot could acknowledge, the engines started to make loud, rough, and unusual noises which could not be related to any particular problem. The pilot asked the tower for an emergency landing, which was approved by the controller. The pilot went through the first three or four steps of the emergency procedures. I looked at the rpm and

manifold pressure, and the pilot stated the right engine was out. She informed the pilot, "I don't know, Paddy," and observed the needles on both engines and gauges fluctuating. She further stated, "my rudder pedals were stowed, so I could not determine the dead engine by the dead foot, dead engine method." She pointed out a pasture and the pilot stated they had to go to the water, and continued to work with both engines, but the noise never decreased. She did not recall the pilot shutting down either engine or feathering a prop, and said, "we seemed to be, not in a glide, but sinking like a rock after the effect of going over the top of a roller coaster." She did not recall the last few hundred feet or the collision with the trees.

Witnesses stated they saw the airplane flying towards the north at a very low altitude, descending. The engines were making a loud popping sound. The airplane started a shallow turn estimated less than 45 degrees. The airplane collided with a tree and crashed into the canal.

PERSONNEL INFORMATION

The 40-year-old deceased pilot held an airline transport pilot certificate, with ratings for airplane multiengine land, and multiengine sea. In addition, he held a private pilot certificate with a rating for airplane single-engine land. He indicated on an application for a first class medical certificate dated December 14, 1998, that he had accumulated 10,000 hours, with 400 hours flown in the last 6 months. Attempts to locate the pilot's logbook were unsuccessful. A certified letter was mailed to the wife of the deceased pilot on April 28, 1999, requesting a copy of the pilot's logbook. The letter was returned to the NTSB by the U.S. Postal Service, on May 6, 1999.

Review of a pilot history form submitted to Aviation Insurance Management Inc., on March 17, 1999, revealed the pilot had accumulated 11,711.5 total hours, of which 520 were recorded as logged in the Grumman Goose G-21A, and 20 hours were flown in the last 90 days.

The 57-year-old FAA inspector holds an airline transport pilot certificate, with ratings for airplane single-engine land/sea, multiengine land/sea, flight instructor, airplane single and multiengine, and instrument airplane. In addition, she holds a ground instructor and flight engineer certificate. She indicated on an application for a second class medical certificate dated August 19, 1998, that she had accumulated 7,521 hours, with 71 hours flown in the last 6 months. Review of FAA Form 4040-6 revealed the pilot had not recorded any hours in the Grumman Goose G-21A before the accident. She was requalified in the Grumman Mallard GA-73T on February 24, 1998. Her last seaplane proficiency flight was conducted in a GA-73T on August 18, 1998. Review of the FAA inspectors FAA Form 4040.6, FAA Aircraft Request and Use Record, dated August 18, 19998, revealed she had only recorded six day takeoff and landings during the 4th quarter of the Flight Standards Event Based Currency program (EBC), and she did not meet the quarterly events required by the end of the 14-day grace period. An LOA was issued by FAA ASW-203, on March 3, 1999, authorizing her to conduct checkrides in a G-73T aircraft. She was prohibited from occupying a required flight crewmember seat while performing duties under the authority of the LOA. According to a cc: mail sent to the FAA inspector on March 12, 1999, from her white team leader, she was authorized by the FAA Regional Office to conduct the 14 CFR Part 135.293 check to Tropic Bird Airways. The pilot did not recall if she was or was not EBC current at the time of the accident.

The FAA inspector's supervisor stated in a statement dated September 7, 1999, he reviewed the national inspector pilot resource web site to see if any other inspectors were available who met the EBC currency requirements for twin-engine seaplanes, and none were located. Although the inspector assigned was not seaplane events current, she was airplane current, having completed all general aircraft events.

"FAA Bulletins HBAT 93-02/HBGA 93-01 address (among other things) what to do in the event an appropriately rated and EBC current inspector is not available to conduct a given practical test. On such occasions, a LOA can be issued to allow an inspector to administer the check, if that inspector is deemed best qualified in an aircraft with similar characteristics. Because inspector Hirsch holds both Airline Transport Pilot (ATP) Multi-Engine Seaplane and Grumman G-73T type ratings, I felt she was best qualified to administer the checkride....I could not find no written guidance that addressed how to obtain a similar dispensation from the EBC requirements for checkrides administered in small aircraft."

"It did not seem rational to me that the FAA intended to allow dispensations from the EBC requirements for checkrides administered in large aircraft, but not for small aircraft, so I called Mr. Emmet Hughes (ASO-250), the Air Safety Regulations Branch EBC Programs Specialist. We discussed all of the above matters. He agreed that an LOA was not appropriate and that it appeared inspector Hirsch could administer the checkride for Paradise Flights, Inc.

I was trained to use my best judgement when confronted with situations not addressed in our Handbooks and Bulletins. Because the pertinent FAA Orders and Bulletins were silent as to the mechanism by which dispensation from the EBC requirements could be obtained for administering a checkride in small aircraft (under 12,500 lbs.). I opted to exercise my best judgement in determining the proper course of action.... I authorized her to conduct that check. I stand by that decision, and believe it was not inconsistent with FAA policy."

A statement submitted by an FAA Aviation Safety Inspector assigned to the ASO-250, Air Safety Regulations Branch, FAA Southern Region Headquarters, College Station, Georgia, revealed that the FAA inspector's supervisor contacted ASO-250 on or about March 11, 1999, regarding the proposed G-21A aircraft Part 135 flight check. "The main items of discussion were, requirements for an Letter of Authorization (LOA), inspector qualification for job functions as a pilot, and EBC requirements for inspector currency to fly or conduct job functions as a pilot. The discussion revealed that a G-21A is certified below 12,500 Lb.'s gross take-off weight and, therefore, does not require an LOA to conduct a flight check when the inspector has not flown that particular aircraft. Further, that an LOA previously used to conduct a flight check in a G-73 aircraft had no bearing on the planned FAR 135 flight check even if it had been required in a G-21A. The discussion then hinged on the requirements of the General Aviation Inspectors Handbook, 8700.1, and FAA Order 4040.9, Aircraft Management Program. The items talked about were requirements for:

* 24-month formal course, or equivalent, attendance by operations inspectors who conduct cockpit job functions. * 12-month flight competency checks for operations inspectors who conduct cockpit job functions. * EBC currency in aircraft category and class of aircraft flown while performing inspector job functions.

"The telephone call was concluded on the basis that the proper references to determine inspector qualifications were discussed, and that if the inspector met those requirements, then the flight check could be conducted. At no, time did the Southern regional Office approve or agree to an operation outside the parameters of the FAR's, Inspector Handbook or FAA Order."

Review of FAA Order 4040.9D, Appendix 11. FLIGHT STANDARDS EVENT BASED CURRENCY PROGRAM SECTION 1. GENERAL, SECTION 3. QUARTERLY EVENTS FOR GROUP 1 INSPECTORS and, SECTION 5. DOCUMENTATION, states:

"1. PURPOSE. This appendix prescribes the Flight Standards Event Based Currency (EBC) Program for Flight Standards Aviation Safety Inspectors....

3. DEFINITIONS....

f. Group 1 Pilot. An Aviation Safety Inspector-Operations who is assigned to perform one or more of the following job functions:

(1) Conduct pilot certification activities while occupying a pilot duty station.... 11. LOCAL FLIGHT PROGRAM MANAGEMENT

c. Currency Required to Perform Flight Certification Job Functions. Inspectors are qualified to perform flight certification job functions only after complying with this appendix. Managers and supervisors shall not assign and inspectors will not accept assignments involving flight certification job function responsibilities without compliance with the requirements of this appendix....

14. ELIGIBILITY TO CONDUCT AIRMAN CERTIFICATION JOB FUNCTIONS. For an inspector to be eligible / assigned to perform flight certification job functions, he must meet the following criteria:...

(c) Completion of Quarterly Events Program per this appendix....Events / tasks will be completed by inspectors on a quarterly basis.

(1) Grace period. If tasks have not been completed by the end of the Quarter, the inspector will be allowed 14 additional calendar days to complete them....Inspectors failing to complete the quarterly events by the end of the grace period, however, will need to meet re-qualification provisions of the next paragraph.

(2) Re-qualification provisions. An inspector who fails to meet the events / task requirements set forth by paragraph c above, shall be required to complete one quarter's event / tasks and a requalification check prior to being reassigned flight certification job functions. This provision applies to inspectors who become non-current under this appendix for any reason.

20. CATEGORY, TYPE AND CLASS OF AIRCRAFT. Each category, type and class of aircraft listed here will require training and currency events to be performed:...

Airplane-Multi-Engine Sea

21. GROUP 1 INSPECTOR TASKS. Each group one inspector will perform the quarterly tasks as follows:

a. General Tasks. Tasks found in paragraphs titled "General" apply to inspectors assigned flight certification job functions in t